14+

ITEM NO.F47/F647

F-SERIES 2.4G

4 CH DIGITAL PROPORTIONAL R/C HELICOPTER MODEL

INSTRUCTION MANUAL

Thank you for purchasing this product. Please read this manual carefully before use and retain it for future reference.

Technical parameter of the helicopter

Fuselage Length:235MM	Gross Weight: about 49g	Main Rotor Diameter: 225MM
Overall height: 80MM	Battery: Li-polymer 3.7V	Motor: N30
Gear Ratio: 8:1	Tail Rotor Diameter: 50MM	Charging Time: about 70 minutes

Introduction

- With single-rotor design and built-in gyro, the helicopter is more flexible and much stronger.
- New designed structure makes assembly and maintainance easier.
- Adopting 2.4G auto connection technology, scores of helicopters can be played at the same time.
- With high power capacity of 3.7V 380mAh li-polymer battery, flight time is about 8 minutes.
- LCD remote control is included.

Safety Guidelines

- This product is not a toy. It is not applicable for children who are under 14 years old.
- Please read this instruction manual carefully before playing and operate the product according to the manual.
- The users are in full charge of proper operating the helicopter. The manufacturer and dealers disclaim all responsibility for the damage caused by misuse.
- Keep the small accessories away from the kids to avoid accident.
- Keep batteries away from fire or high temperature environment.
- When flying the helicopter, keep it 1~2 meters away from user or others to avoid injury due to collision.
- Not to decompose or modify the product which may cause malfunction or accident.
- Fly the helicopter within your eye vision for easy and safety control.
- Need adult supervision when this helicopter is being played by children.
- Only batteries of the same or equivalent type as recommended are to be used.
- Insert batteries with correct polarity.
- Non rechargeable batteries are not to be charged; the transmitter need 4XAA batteries for work.
- Do not mix old and new batteries.

Product/spare parts included in this packaging

Description	Qty(pc)
Helicopter	1
Remote controller	1
Rotor blade	2

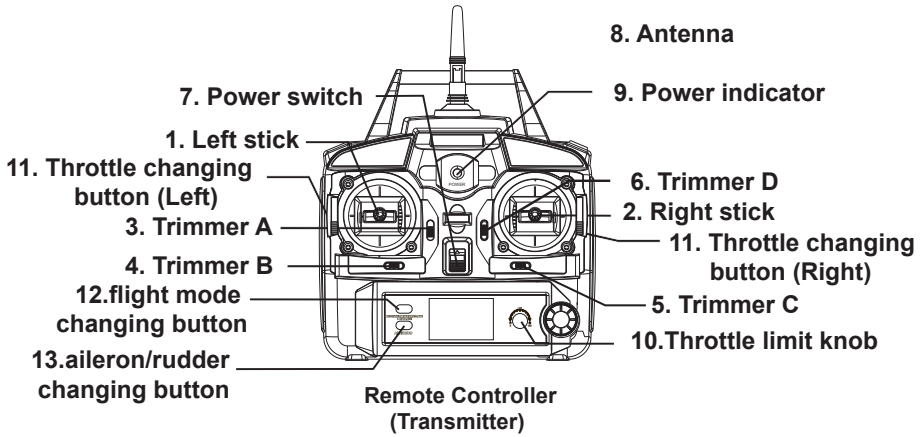
Description	Qty(pc)
3.7V 380mAh li-polymer battery	2
Manual	1
Tail Rotor	1
USB charger	1

The LCD Remote controller

Main features of the remote controller

- 2.4G, LCD reomote control, scores of helicopters can be played at the same time.
- Control function:upward,downward, forward, backward,leftward, rightward, turning left and turning right.
- Throttle control stick can be freely switched according to player's habit.

Sketch and function switches of the remote controller



No.	Function switch	Function description
1	Left stick	STICK MOD2:upward/downward,turn left/turn right; STICK MOD4:upward/downward,leftward/rightward. STICK MOD1:forward/backward,turn left/turn right; STICK MOD3:forward/backward,leftward/rightward.
2	Right stick	STICK MOD1: upward/downward,leftward/rightward; STICK MOD3: upward/downward, turn left/turn right; STICK MOD2: forward/backward,leftward/rightward; STICK MOD4: forward/backward,turn left/turn right.
3	Trimmer A	In stick Mod 2 and 4, this button is null. In stick Mod 1and 3, it helps to tune the helicoper's forward and backward flight.

No.	Function switch	Function description
4	Trimmer B	In stick Mod 3 and 4, it helps to tune the helicopter's sideward flight. In stick Mod 1 and 2,it helps to tune the helicopter's left and right direction turning speed.
5	Trimmer C	In stick Mod 3 and 4, it helps to tune the helicopter's left and right direction turning speed. In stick Mod 1 and 2,it helps to tune the helicopter's sideward flight.
6	Trimmer D	In stick Mod 1 and 3, this button is null. In stick Mod 2 and 4, it helps to tune the helicoper's forward and backward flight.
7	Power switch	It controls the power source of the transmitter.Slide the power switch to the “ON” position, the transmitter is powered on; slide the power switch to the “OFF” position, the transmitter is powered off.
8	Antenna	Transmits wireless signal.
9	Power indicator	The indicator light keeps blinking slowly: the transmitter is not activated. The indicator light keeps flashing rapidly: the transmitter is sending out connectional signal to the helicopter. The indicator light keeps on without blinking: the transmitter is ready for controlling the flight.
10	Throttle limit knob	The throttle of the helicopter can be adjuted by this button, player can use this button to increase or decrease the helicopter's upward/downward speed.
11	Throttle changing button	Slide down or slide up the 2 buttons at the same time to select the throttle control stick
12	flight mode changing button	There are 3 flight modes of the helicopter: low speed, medium speed and maximum speed.
13	aileron/rudder changing button	Also named Stick Mode changing button.Press this button to change the control stick mode.

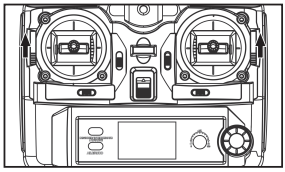
Remote controller’s setting

Select the throttle control stick

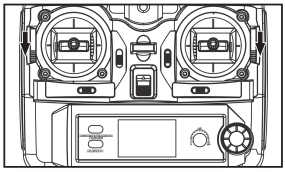
There is 1 throttle button on either side of the remote controller.

- Slide both of the 2 buttons to "R", the right stick is the throttle control stick.
- Slide both of the 2 buttons to "L", the left stick is the throttle control stick.

Tip: both of the 2 buttons should be either on the position of "R" or "L", otherwise, the remote controller can not be activated.



Pic.1



Pic.2

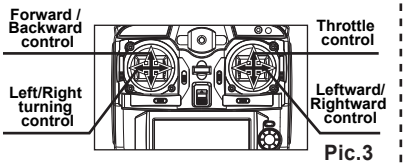
Activate the LCD remote controller

Slide the power switch to "ON" position after throttle control stick selection is done.To activate the remote controller, slowly push up the throttle control stick to the top and then push it down to the bottom. The remote controller is activated once a beep sound is heard. Then, the indicator light keeps flashing while the remote controller is sending out connectional signal. It takes about 10 seconds to finish the signal transmission process. After signal transmission is completed, the indicator light keeps constant "on". User can turn either the left stick or the right stick to skip the signal transmission process and enter into the start-up interface directly.

Stick Mode Selection

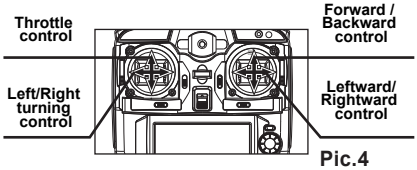
There are 4 flight modes available for selection: Stick Mod 1 (Pic.3) Stick Mod 2 (Pic.4) Stick Mod 3 (Pic.5) Stick Mod 4 (Pic.6)

- **When the left stick controls the throttle, press the AILE/RUDD button to select the Mode(Mode 4 or Mode 2).**
- **When the right stick controls the throttle, press the AILE/RUDD button to select the Mode(Mode 1 or Mode 3).**



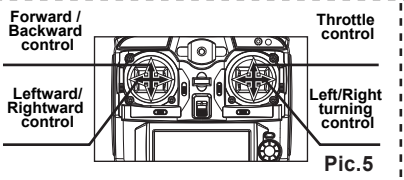
Pic.3

STICK MOD:1



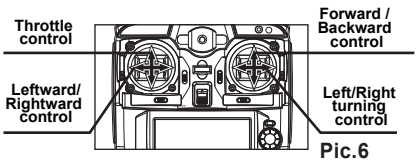
Pic.4

STICK MOD:2



Pic.5

STICK MOD:3

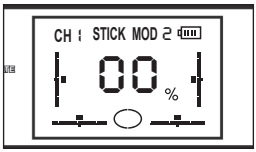


Pic.6

STICK MOD:4

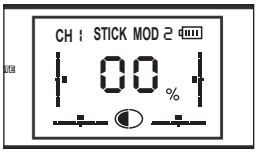
Flight mode selection

There are 3 flight mode available: low speed, medium speed and maximum speed.Player can select the flight speed by pressing the flight mode button.



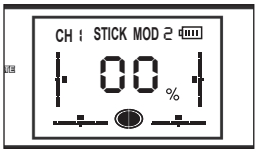
This is the low speed icon.

Pic.7



This is the medium speed icon.

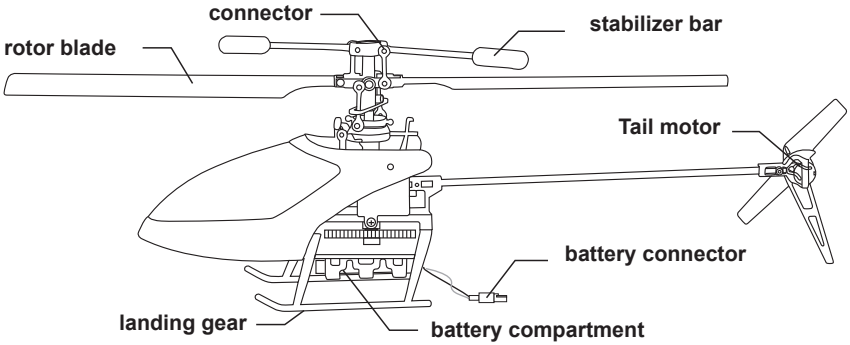
Pic.8



This is the maximum speed icon .

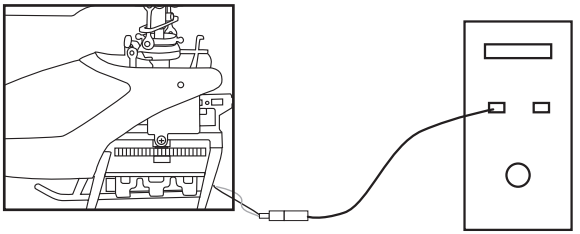
Pic.9

The helicopter



How to charge the helicopter

- **This helicopter is included with USB charger.**
- **Before charging, please disconnect the battery power plug from helicopter PBC cable plug.Then, connect the battery power plug to the USB cable and insert the USB interface to any equipment which is with USB interface.**
- **When the battery is underpowered, the charging light of the USB is off; when the battry is full charged, the charging light of the USB is on.Full charge taks about 70 minutes.**



Pic.8

⚠ NOTE

When not playing the model, please turn off the model and unplug the battery cable from the socket. If it keeps connected, it may result in over discharging. Take out the batteries from the remote controller while not playing the model for a long time.

NOTE ON THE BATTERY

This product is furnished with battery pack, please pay attention to the following safety instructions:

① Only the charger provided by the factory could be used for charging.

② When charging the battery: If the battery is too hot, it means that the battery is overcharged. In such case, users should stop the battery charging right away. Over charging would damage the battery eternally.

③ Please keep supervised when charging the battery.

④ Do not decompose the battery.

⑤ After finishing flying, the battery temperature would be relatively high. Users are advised to wait for about 30 minutes until the battery is chilled down before recharging.

⑥ Please turn off the helicopter if not using. If you are planning not to play the helicopter for a long time, charge the helicopter for about 1 hour before storing it .

Caution : Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
For adaptor, the socket-outlet shall be installed near the equipment and shall be easily accessible

Preparation for flight

- Turn on the remote control. To activate the remote controller,slowly push up the throttle stick to the top and then push it down to the bottom. The remote controller is activated once you hear a beep sound.Then, the indicator light flashes rapidly while the remote controller is sending out connectional signal.
- Connect the battery plug to the helicopter battery cable,the indicator light of the helicopter will keep slowing flashing,set the helicopter down to a platform. Once the helicoter receives the connecting signal,the indicator light of the helicopter will keep flashing rapidly to check the gyro,then,push up the throttle stick slowly to takes off the helicopter.
- If the helicopter is flying slightly to one side, please use the trimmer button to tune it to balance.

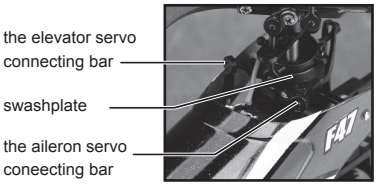
Check and regulate the swashplate of the helicopter

The swashplate of the helicopter should be kept horizontal, otherwise, the helicopter will fly forward/backward/leftward/rightward automatically even though no control signal is given. Hence, it is very important to check and confirm that the swashplate is horizontal before flying the helicopter. To get the swashplate horizontal, there are two ways available for regulation.

(1) If the swashplate is slightly inclined, it is okay to regulate the trimmer button of the remote control to get the swashplate retain horizontal.

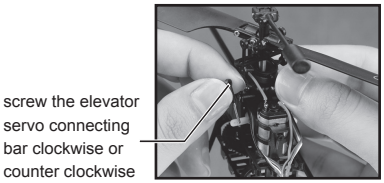
(2) If the swashplate is greatly inclined, then, it should be better to regulate the length of the servo connecting bar to get the swashplate parallel to the ground. The operation instruction are specific as follow:

A.When the helicopter is hovering but still keeping flying forward automatically, please take out the elevator servo connecting bar, then, clockwise rotate the bar for one circle(360°). How many circle should be regulated will depend on the tilt angle of the swashplate. Generally, rotate the bar for one or two circles for one regulation.(Pic 10)

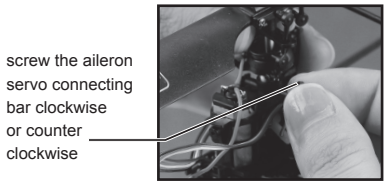


Pic9

B.When the helicopter is hovering but still keeping flying backward automatically, please take out the elevator servo connecting bar, then, counter-clock wise rotate the bar for one circle (360°). How many circle should be regulated will depend on the tilt angle of the swashplate. Generally, rotate the bar for one or two circles for one regulation. (Pic 10)



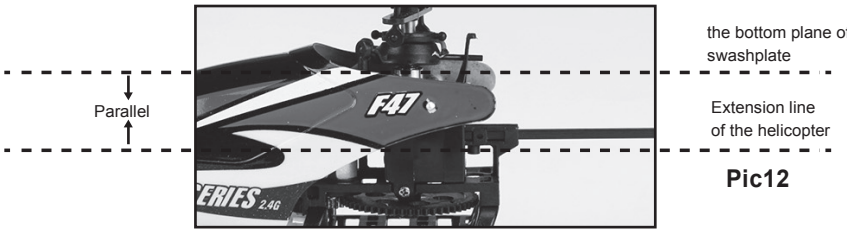
Pic10



Pic11

C.When the helicopter is hovering but still keeping flying leftward automatically, please take out the aileron servo connecting bar, then, clockwise rotate the bar for one circle(360°). How many circle should be regulate, will depend on the tilt angle of the swashplate. Generally, rotate the bar for one or two circles for one regulation.(Pic 11)

D.When the helicopter is hovering but still keeping flying rightward automatically, please take out the aileron servo connecting bar , then, counter-clockwise rotate the bar for one circle(360°). How many circle should be regulate, will depend on the tilt angle of the swashplate. Generally, rotate the bar for one or two circles for one regulation. (Pic 11)



Pic12

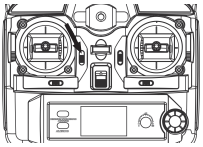
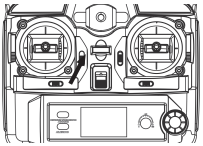
Tips

- **To make sure the perfect performance of the helicopter, please do not regulate two servo connecting bars at the same time. When regulate the servo connecting bar, please try to keep the bar vertical to the white accessory of the helicopter body.**
- **Before regulation, make sure that the helicopter is ready for flight and the remote control is activated.**

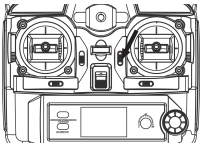
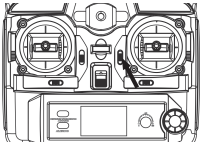
Trimmer Functions

If the helicopter keeps moving forward/backward even there is no control signal given, users may adjust the elevator trim to keep the helicopter balanced.

STICK MOD 1 or 3:

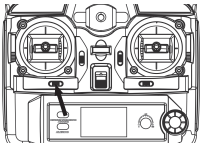
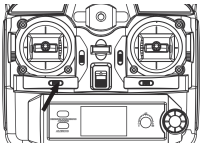
		**If the helicopter keeps moving backward, push up Trimmer A until it gains balance.**
		**If the helicopter keeps moving forward, push down Trimmer A until it gains balance.**

STICK MOD 2 or 4:

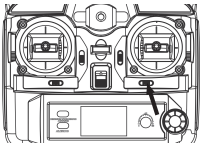
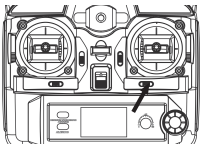
		**If the helicopter keeps moving backward, push up Trimmer D until it gains balance.**
		**If the helicopter keeps moving forward, push down Trimmer D until it gains balance.**

If the helicopter keeps moving leftward/rightward even there is no control signal given, users may adjust the aileron trim to keep the helicopter balanced.

STICK MOD 3 or 4:

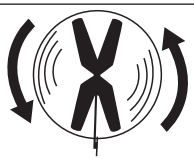
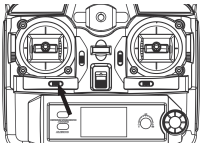
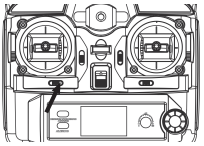
		**If the helicopter keeps moving leftward, turn right of Trimmer B until it gains balance.**
		**If the helicopter keeps moving righttward, turn left of Trimmer B until it gains balance.**

STICK MOD 1 or 2:

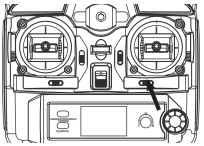
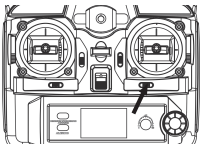
		**If the helicopter keeps moving leftward, turn right of Trimmer C until it gains balance.**
		**If the helicopter keeps moving righttward, turn left of Trimmer C until it gains balance.**

If the helicopter keeps spinning even there is no control signal given, users may adjust the rudder trim to keep the helicopter balanced.

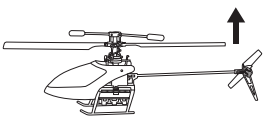
STICK MOD 1 or 2:

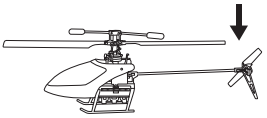
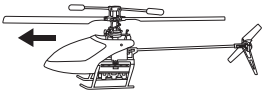
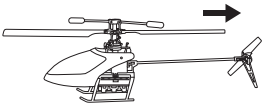
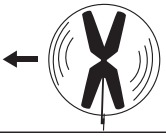
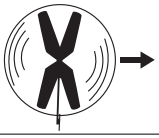
		**If the helicopter keeps spinning counterclockwise in the air,turn right of Trimmer B until it gains balance.**
		**If the helicopter keeps spinning clockwise in the air,turn left of Trimmer B until it gains balance.**

STICK MOD 3 or 4:

		**If the helicopter keeps spinning counterclockwise in the air,turn right of Trimmer C until it gains balance.**
		**If the helicopter keeps spinning clockwise in the air,turn left of Trimmer C until it gains balance.**

Operating

Upward		**Push up the throttle control stick, the rotation speed of the mains rotors are increasing and the helicopter ascends accordingly.**

Downward		Push down the throttle control stick, the rotation speed of the mains rotors are decreasing and the helicopter descends accordingly.
Turn left		Turn the left/right turning control stick to the left,the helicopter will left.
Turn right		Turn the left/right turning control stick to the right,the helicopter will right.
Forward		When the helicopter is flying, push up the forward/backward control stick, the helicopter will move forward.
Backward		When the helicopter is flying, push down the forward/backward control stick, the helicopter will move backward.
Leftward flight		Turn the sideward flight control stick to the left side,the helicopter will fly leftward.
Rightward flight		Turn the sideward flight control stick to the right side,the helicopter will fly rightward.

Trouble shooting

Problem	Reason	Solution
No reaction from the helicopter	1.The helicopter is underpowered.	1.Get the battery of the helicopter charged
	2.The indicator light of the helicopter flashing rapidly, and the gyo is in the testing statement	2.Set the helicopter down to a platform, until the indicator light turn to constant ”ON” without blinking.
	3.the helicopter and the transmitter is out of radio connection	3.Repeating the connection procedure.